

Student Involvement in Sediment Remediation FAQs

Caitie McCoy, Environmental Social Scientist
Illinois-Indiana Sea Grant



Illinois-Indiana Sea Grant piloted an educational program with 4th grade students and freshmen at two schools in the Grand Calumet River Area of Concern in Northwest Indiana. The purpose was to connect local youth to the river, build scientific literacy, and teach them about a nearby Great Lakes Legacy Act sediment remediation project. The challenge was to make a seemingly “invisible” problem like contaminated sediment *“visible,” relevant, and interesting* to students living near the river.

1) How did you teach sediment remediation to schoolchildren?

We made monthly visits to the classrooms and delivered lesson plans we designed with the teachers. For the 4th grade students, we used a habitat framework. Young children relate well to animals and understand concepts like shelter and resources. Each lesson (planting, habitat & the food chain, pollution, remediation & restoration) reinforced sediment as habitat for aquatic organisms. For freshmen, we highlighted how contaminated sediment can impact benefits provided by the Great Lakes. We focused on the action of the remedial process, including equipment mobilization, sediment disposal, and community outreach.

2) How did you make this program fun?

Both grade levels took field trips to the site. 4th grade students grew native species in their classroom that they later planted at the site. Freshmen took water samples, performed data analysis and did a litter cleanup at the site. We incorporated activities into every lesson, such as experiments and role playing. Students pretended to be everything from an invasive species to an angry concerned citizen at a public meeting. We turned dry information into interesting quips, such as comparing the cost of the project to the cost of Queen Elizabeth’s annual salary.

3) What kind of visibility and press did this program get?

A lot! We coordinated the program with the U.S. EPA press event for the Great Lakes Legacy Act. 4th grade students displayed a habitat mural and planted native species from their classroom at the event. A freshman representative was the opening speaker at the event, speaking about the need for community involvement. The remediation project and education program ran as a single story in two regional newspapers and on numerous websites.

Student Involvement FAQs continued



4) Did the students make the habitat mural?

Yes, the 4th grade students made a mural for their final classroom activity to create a visual representation of the habitat framework, comparing underwater habitat to upland habitat and showing how organisms are linked to components of their habitat. They displayed the mural at the U.S. EPA press event (see picture, left).

5) When did this program occur?

Programming began in early February 2012 and culminated in June with student participation at the U.S. EPA press event. With lessons learned from the pilot, we are refining the program for other Great Lakes Legacy Act sites in other Areas of Concern. In October 2012, we delivered a high school program for the Sheboygan River. We have delivered programming to 800 students thus far.

6) Did the remedial project team or contractors play a role?

Yes, this was a team effort. Pizzo & Associates Ltd. volunteered to provide native seeds, flats, and soil to the 4th grade students so they could grow plants in their classroom. Individuals from the project team (U.S. EPA, and Indiana Department of Environmental Management) and from SulTrac JV volunteered and made guest visits to the classroom.

7) Were there any safety concerns?

Students visited the site after large equipment had demobilized. Students had to have parents sign permission forms, which we shared with the landowner (and project partner), Indiana Department of Natural Resources.

8) Can I incorporate this program into my community outreach?

Yes, the curriculum will be available on the Sea Grant website in the spring and is adaptable. The program is very low in cost. We recommend the program be led by an outgoing individual who gets along well with children and is comfortable communicating his or her passion for the environment.

Caitie McCoy is an environmental social scientist with Illinois-Indiana Sea Grant. She is a liaison to U.S. EPA's Great Lakes National Program Office and performs community outreach for the Great Lakes Legacy Act, collaborating with federal, state, and local government and entities. Feel free to submit comments or questions to Caitie about the program at cmccoy2@illinois.edu.

Illinois-Indiana Sea Grant: www.iiseagrant.org
Great Lakes Legacy Act: www.epa.gov/glla

